

**Application to the relevant planning authority
The Planning (Hazardous Substances) (Scotland) Act 1997 - Section 5(1)**

The Town and Country Planning (Hazardous Substances) (Scotland) Regulations 2015 (Regulation 6)

Application for Hazardous Substances Consent

1 Applicant	Address	Stephen Bradley Air Products BR Ltd Hersham Place Technology Park, Molesey Road, Walton on Thames
	Post code	KT12 4RZ
	Telephone number	01932249992
	Person in control of the land to which the application relates, if different to above	O-I Manufacturing UK Limited
Address	Address	Kelliebank House, Glasshouse Loan Craigward Road, Alloa, Scotland
	Post code	FK10 1NT
	Telephone number	
	2 Address or other location details of application site	Land adjacent to O-I Manufacturing UK Limited, Kelliebank House, Glasshouse Loan Craigward Road, Alloa, Scotland, Post code OS grid ref
	FK10 1NT centred on National Grid Reference (NGR) NS 87958 92409	

3 Hazardous substance(s) covered by the application

- (a) List named substances falling within Part 2 of Schedule 1 to the Regulations first, then list any substances falling within the categories in Part 1 of that Schedule; finally list substances falling within the description in Part 3.
- (b) Substances falling within Parts 1 or 3 of Schedule 1 to the Regulations may be listed under the relevant category or description or named specifically. Where a substance falls within Part 1 and 2 list under Part 2 only; where a substance falls within more than one category in Part 1 list under the category which has the lowest controlled quantity. Where a substance falling within Part 1 or 2 also falls within Part 3 list under the Part which has the lowest controlled quantity. The “controlled quantity” means the quantity specified for that substance in column 2 of Parts 1, 2 or 3 of Schedule 1 to the Regulations.

Note: The addition rule as set out in the schedule to the regulations should be applied to determine whether consent is required for substances below the Controlled Quantity. Examples are given in the associated planning guidance. The Planning (Hazardous Substances) (Amendment) Regulations 2017

are relevant to the use of the addition rule in England only. The Planning (Hazardous Substances) (Amendment) Regulations 2015 are relevant to Q* (addition rule) for LPG, and relevant to notes about ammonium nitrate.

Table A

<i>Name, or relevant category or description of substance</i>	<i>Part number in Schedule 1 to the Regulations, and entry number if Part 2, category if Part 1, identity if Part 3</i>	<i>Do you have a current PHS consent* in respect of this substance? (Yes/No)</i>	<i>If "yes", state quantity for which consent granted</i>	<i>Maximum quantity proposed to be present in tonnes</i>
Oxygen	2,25	No		1500
Propane	2,18	No		0.05
Acetylene	2,19	No		0.05
Hydrogen	2,15	No		0.05
Petroleum products	2,34 (a/b/c)	No		2

*a hazardous substances consent

Where in Table A consent is sought for any substance below the relevant Control Quantity, give the reason in the box below including the calculation for each relevant type of hazard (health, physical and/or environmental) with the q/Q fractions that add to greater than or equal to 1.

Acetylene for welding - highly flammable, in pressure containers
 Propane for heating flammable in pressure containers
 Hydrogen mixtures for calibration gases in pressure containers
 Petroleum products – lube oil in machines and drums (for top up)

4 Manner in which substance(s) are to be kept and used

For each substance, category or description of substance, covered by the application, provide the following information, referring to the substance location plan where appropriate.

“vessel” means any container designed or adapted to contain hazardous substances which is affixed to the land, and includes a container which forms part of plant or machinery which is affixed to the land but does not include a pipeline.

“Buried” or “Mounded” vessel includes a vessel which is only partially buried or partially mounded.

“moveable container” means any container designed or adapted to contain hazardous substances other than a vessel.

(a) Tick one box below to show whether the substance(s) will be present for storage only or will be stored and involved in a manufacturing, treatment or other industrial process:

Table B

Substance including Part no. in Sch. 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3	Storage only	Stored and involved in an industrial process
2,25 Oxygen		✓
2,18 Propane	✓	
2,19 Acetylene	✓	
2,15 Hydrogen	✓	
2,34 (a/b/c) Petroleum Products	✓	

(b) For each vessel to be used for **storing** the substance(s) give the following information:

Table C (i)

Vessel No*	Substance including Part no. in Sch. 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3	Installed above ground † (Yes/No)	Buried (Yes/No)	Mounded (Yes/No)	Maximum capacity (cubic metres)	Highest vessel design temperature °C	Highest vessel design pressure (bar absolute)
T622A	OXYGEN 2, 25	YES	NO	NO	318 m3 (345T)	50 deg c	7.015
T622B	OXYGEN 2, 25	YES	NO	NO	318 m3 (345T)	50 deg c	7.015
T622C	OXYGEN 2, 25	YES	NO	NO	318 m3 (345T)	50 deg c	7.015
T623	OXYGEN 2, 25	YES	NO	NO	318 m3 (345T)	50 deg c	7.015

* identify by reference to substance location plan

† if "Yes", specify whether or not it will be provided with full secondary containment

(c) For each substance, category, or description of substance, state the largest size (capacity in cubic metres) of any **moveable** container(s) to be used for that substance, category, or description of substances:

Table C (ii)

<i>Substance including Part no. in Sch. 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3</i>	<i>Storage area on site*</i>	<i>Maximum capacity (cubic metres) of individual moveable containers</i>
Oxygen liquid tanker	Highlighted area on plan	38 m3 (27T)
19 Acetylene	Analyser house	0.05 m3
18 Propane	Analyser house	0.05 m3
15 Hydrogen	Analyser house	0.05 m3
34 Petroleum products (lube oils)	Oil store	0.20 m3

* identify by reference to substance location plan

- (d) Where a substance, category or description of substance is to be used in a **manufacturing, treatment or other industrial process(es)**, give a general description of the process(es), describe the major items of plant which will contain the substance(s); and state the maximum quantity (in tonnes) which is liable to be present in the major items of the plant, and the maximum temperature (°C) and pressure (bar absolute) at which the substance, category or description of substance is liable to be present:

Table D

<i>Substance including Part no. in Schedule 1 to the Regs, and entry no. if Part 2, category if Part 1, identity if Part 3</i>	<i>Description of process(es)</i>	<i>Major items of plant*</i>	<i>Max. quantity (tonnes)</i>	<i>Max. temp. (°C)</i>	<i>Max. pressure (bar absolute)</i>
2, 25 Oxygen	Air Separation Plant (Cryogenic distillation of air)	LP Column in S206 cold box	3.9	65 deg c	5.27 bara

* identify by reference to substance location plan

5 Additional Information

- (a) If you have an existing PHS consent(s) as referred to in Table A, **attach a copy of each consent** to this application.
- (b) **List the maps or plans** or any explanatory scale drawings of plant/buildings submitted with this application (as a minimum submit a site map and a substance location plan – see Notes below).
- Site map
 - 05744.00002.0018.0 Site Location Plan.pdf
 - Substance and mobile container location plan- 2 sheets
 - Haz substance consent mobile and fixed locations sht 1.pdf
 - Haz substance consent mobile and fixed locations sht 2.pdf

- (c) Provide a brief overview description of the **main activities** carried out or proposed to be carried out on the land to which the application relates.

It is proposed to construct and operate a cryogenic air separation unit, separating air by distillation and associated ancillary infrastructure to produce liquid oxygen, liquid nitrogen, liquid argon and gaseous oxygen and nitrogen. Operating every day on a 24 hour a day operation, seven days a week, 365 days a year producing

294 tonnes of oxygen, 150 tonnes nitrogen and 13.5 tonnes of argon per day.

Gaseous oxygen will be supplied to O-I Glass by pipeline to their glass process

LP GOX. (gaseous oxygen)

- Design Pressure 17.4 barg. but relief valves set at 2.6 bar g
- Operating Approx. 1 barg at ambient temp
- Design Temp -29degC-> +65DegC

MP GOX (gaseous oxygen).

- Design P 17.4barg. (relief set a 6.4 bar a)
- Operating Approx. 3.5 barg at ambient temp
- Design Temp -29degC-> +65DegC

Gaseous nitrogen

- Design P 17.4barg. (relief set a 6.4 bar a)
- Design Temp -29degC -> +65DegC

Liquefied air gases (oxygen nitrogen ,argon) will be transferred into bulk storage tanks and then pumped into bulk vehicles on demand and transported off site by cryogenic road tankers to serve the needs of the local manufacturing industry

Oxygen Argon and Nitrogen are the end products, there is no chemical processing involved.

Storage tanks

4x Liquid Oxygen (LOX) tanks 345 tonnes each

- (d) Provide details of how each relevant substance is proposed to be transported to and from the land to which the application relates, for example the size and frequency of vehicle deliveries, the size or maximum flow rate of pipeline imports/exports.

Substance including Part number in Schedule 1 to the Regulations, and entry number if Part 2, category if Part 1, identity if Part 3	How, and other details such as frequency and quantity, transported to and from the land to which the application relates	
	Transported to site	Transported from site
25 Liquid Oxygen	Occasional vehicle movements for back up imports if required	5-6 liquid oxygen tanker trips per day (27 T each)
25 Gaseous Oxygen	No	Pipeline

- (e) Provide details of the vicinity of the land to which the application relates, where such details are relevant to the risks or consequences of a major accident (relevant details include numbers of people in neighbouring developments that could be affected by a major accident and details about environmentally sensitive receptors).

- Housing and populations to the North of the site c200m across the road
 - None could be impacted by Major Accident at this site
- Environmentally important areas & agriculture (SSSIs etc.); various areas considered in lower tier environmental risk assessment, concluded **no MATTE** from this site.

- River, groundwater, drinking water; various areas considered in lower tier environmental risk assessment, concluded **no MATTE** from this site.
- Neighbouring COMAH establishments; None
- non-CoMAH sites; Oi Manufacturing site, glass works to the east and warehouse to the west on adjoining sites

(f) Provide a brief overview of the measures taken or proposed to be taken to limit the consequences of a major accident.

Air Products' proposed Alcoa site will implement controls and mitigations to lower the risk of a Major Accident hazard.

These controls have been subject to competent authority inspection and intervention at other Air Products' Lower tier CoMAH sites in UK for >10 years.

Some of the key controls are outlined here:

Defined design, construction standards which address equipment design / selection including:

- Max/min safe operating pressure, temperature, and level.
- Ullage space in cryogenic liquid storages
- Pressure and liquid level indications
- Pressure control via vaporiser and regulator

All Cylinders and valves meet EN standards (cylinders designed, manufactured, inspected in accordance with ADR/CDG to prevent leakage even after vehicle Road traffic accident)

- All pipework that is subject to thermal expansion is designed to allow sufficient movement to relief stress
- Pressure relief systems
- Total hydrocarbon analysis for reboiler safety.

Design standards and Operation Readiness Inspections (ORI):

- Oxygen system cleanliness – all pipework installed in Oxygen service is cleaned to company standard 4WPI-SW70003
- Thermal relief devices to prevent liquid lock (checked as part of ORI)
- Only suitable equipment in areas classified under DSEAR/ATEX workplace regulations
- Preventive maintenance and test regimes:
- Specification, inspection and retest of cylinders is as per national regulation
- Pressure systems inspection, maintenance and repair
- Inspection/maintenance of equipment in areas classified under DSEAR/ATEX
- Routine plant walk-around checks for physical conditions

Management systems:

- Traffic plans with physical protection from ground vehicles
- Suitable lighting to assist FLT operator to work safely in the area

- Suitable hard standing to reduce the likelihood of cylinders falling
- All cylinders chained
- Procedural control of plant modification (MOC and Safety Work Permit)
- Control of ignition sources
- Site security
- Control of inventory of vehicles and cylinders will be managed to maintain lower tier status

(g) Give any further information which you consider to be relevant to the determination of this application. (For example, details about any exempted established substances on site or a copy of any notification about 'other establishments'/exempted established substances if already submitted).

The site has Hazardous Substance Consent, application 00/00152/HAZ for the storage of up to 84 tonnes of natural gas within the holder. The gas holder dates from the 1950s, and it had not been used for a period of over 10 years prior to its demolition. A CONTINUATION OF HAZARDOUS SUBSTANCES CONSENT FOLLOWING CHANGE IN CONTROL OF THE LAND APPROVED 26TH JUL 2000 was granted by Clackmannanshire Council.

This application is for permission for storage of liquid oxygen as part of the Air Separation unit development of Liquid oxygen >200 tonnes, which is subject to planning application ref 22/00012/FULL

A application variation to amend the existing consent to remove consent for the natural gas/ gas holder that is no longer present is noted below

Application to the relevant planning authority

The Planning (Hazardous Substances) (Scotland) Act 1997 - Section 11

The Town and Country Planning (Hazardous Substances) (Scotland) Regulations 2015 (Regulation 7)

Application for modification or removal of a condition(s) attached to an existing hazardous substances consent

[application for Hazardous Substances Consent without a condition(s) subject to which a previous consent was granted]

1 Applicant	Address	Stephen Bradley
		Air Products BR Ltd
		Hersham Place Technology Park, Molesey Road, Walton on Thames
		KT12 4RZ
		01932249992
	Post code	
	Telephone number	
Agent acting on behalf of the applicant	Address	n/a
	Post code	
	Telephone number	

Correspondence (including any Notice) to be sent to the agent instead of the applicant? No

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2 Address or other location details of application site		Land adjacent to O-I Manufacturing UK Limited,
		Kelliebank House, Glasshouse Loan
		Craigward Road, Alloa, Scotland,
	Post code	FK10 1NT
	OS grid ref	centred on National Grid Reference (NGR) NS 87958 92409

3 Substances covered by the application

[consented substance(s) for which a variation in condition(s) is being applied for]

- (a) In the Table below, list named substances falling within Part 2 of Schedule 1 to the Regulations first, then list any substances falling within the categories in Part 1 of that Schedule; finally list substances falling within the description in Part 3.
- (b) Substances falling within Parts 1 or 3 of Schedule 1 to the Regulations may be listed under the relevant category or description or named specifically. Where a substance falls within Part 1 and 2 list under Part 2 only; where a substance falls within more than one category in Part 1 list under the category which has the lowest controlled quantity. Where a substance falling within Part 1 or 2 also falls within Part 3 list under the Part which has the lowest controlled quantity. The “controlled quantity” means the quantity specified for that substance in column 2 of Parts 1, 2 or 3 of Schedule 1 to the Regulations.

<i>Name or relevant category or description of substance</i>	<i>Part number in Schedule 1 to the Regulations, and entry number if Part 2, category if Part 1, identity if Part 3</i>	<i>Maximum quantity proposed to be present (in tonnes)</i>
Natural Gas	Part c 68	84

4 Application for modification or removal of a condition(s) attached to a previous consent

- (a) Describe any condition previously attached to the relevant consent which it is proposed should no longer be attached to the consent, or which should only be attached in a modified form. In the latter case, indicate the proposed modification–

<i>No.</i>	<i>Condition previously attached</i>	<i>Action (modification or removal)</i>	<i>If modification, details of proposed modification</i>
	Consent	Removal of consent for natural gas	Replacement with consent for Liquid oxygen

- (b) Give the reasons why the condition(s) referred to in (a) should not be attached, or should only be attached in a modified form–

<i>No.</i>	<i>Reason</i>

- (c) Describe any relevant changes in circumstances since the date of the relevant consent–

The land was acquired by OI around the time the change of ownership was noted, the gasholder was demolished prior to this.

From March 2022 the land is now being leased to Air Products BR Ltd for the purpose of construction and operating an Air Separation plant to supply oxygen and nitrogen to the adjacent OI site and liquid air gases to other nearby industry's, this involves storage of Liquid oxygen >200 tonnes, which is subject to planning application ref 22/00012/FULL.

5 Additional Information

Give any additional information which you consider to be relevant to the determination of this application—

The site has Hazardous Substance Consent, application 00/00152/HAZ for the storage of up to 84 tonnes of natural gas within the holder. The gas holder dates from the 1950s, and it had not been used for a period of over 10 years prior to its demolition.

A CONTINUATION OF HAZARDOUS SUBSTANCES CONSENT FOLLOWING CHANGE IN CONTROL OF THE LAND APPROVED 26TH JUL 2000 was granted by Clackmannanshire Council.

This part of the application to remove consent for the natural gas/ gas holder that is no longer present , in addition to applying for hazardous substance consent for the oxygen. (see above)

Attach in relation to any relevant consent, **a copy of the consent.**

Files attached

- o Alloa existing planning haz substance consent.pdf
- o Alloa existing planning haz subs dwg.pdf

Attach a change of location plan if the application relates to a condition restricting the location of a hazardous substance.

A “**change of location plan**” is a plan of the land to which the application relates, drawn to a scale of not less than 1:2,500 which identifies the location of the hazardous substance at the date of the application, and the proposed location requiring the application.

I/We hereby apply for hazardous substances consent in accordance with the proposals described in the application

Signed 

on behalf of AIR PRODUCTS BC LTD

(insert name of person in control of the land if different to applicant)

Date 30/3/21

To be accompanied by the notices and certificates required by regulations 6 and 7 of the Regulations.

Notes

“**Site map**” is a map, reproduced from, or based on, an Ordnance Survey map with a scale of not less than 1:10,000, which identifies the land to which the application relates and shows National Grid lines and reference numbers.

“**Substance location plan**” is a plan of the land to which the application relates, drawn to a scale of not less than 1:2,500, which identifies-

- a) any area of land intended to be used for the storage of the substance;
- b) where the substance is to be used in a manufacturing, treatment or other industrial process, the location of the major items of plant involved in that process in which the substance will be present; and
- c) access points to and from the land.

Attachments

- Site map
 - 05744.00002.0018.0 Site Location Plan.pdf

